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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/202,216	04/08/1999	TAKAFUMI ATARASHI	Q52648	2612

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SUGHRUE MION ZINN MACPEAK & SEAS
2100 PENNSYLVANIA AVENUE NW
WASHINGTON, DC 20037

EXAMINER

CHANNAVAJALA, LAKSHMI SARADA

ART UNIT	PAPER NUMBER
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1615

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/202,216

Applicant(s)

ATARASHI ET AL.

Examiner

Lakshmi S Channavajjala

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11-21-03; 2-04-04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claims 1-4, 6, 7 and 9-16 are pending.

Claims

Instant claims are directed to multi-layer coated powder particles comprising a base particle having a specific gravity of 0.1 to 10.5 surrounded by plural coating layers which are different from each other in refractive index, wherein at least one of the coating layers is an organic layer. Dependent claims recite limitations such as inorganic metal or metal oxide layers, a pigment or a cosmetic comprising the particles of claim 1 the process of formation of metal oxide, thickness or the refractive index and coating of individual base particles.

The following new rejection is applied to instant claims:

Claim Rejections - 35 USC § 102

Claims 1-3, 6-7, 9-11 and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 01247155 (JP '155).

JP '155 discloses multilayered composite particles comprising solid particles, a titanium dioxide layer formed by treating the surface of the particles with an organic titanate, and a hot melt adhesive layer coated on the surfaces of the titanium oxide layer (abstract). The solid particles (that read on instant base particle) of JP '155 is made of resins, silica glass or divinyl benzene acrylate ester polymer. The hot melt adhesive of JP '155 comprises an olefinic resin, polyalkyl acrylate and polybutadienes etc., thus read on the organic layer of claim 1. Although JP '155 is silent with respect to the claimed specific gravity, the reference discloses solid particle is a resin or an acrylate. Further, while instant claim does not specify the nature of the base particle, instant example 1 also recites base particle as an acrylate. Accordingly, the claimed

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specific gravity is inherent to the base particle of JP '155. The titanium dioxide layers reads on claims 2 and 3. Instant claim 6 does not require a pigment. Accordingly, the composition of JP '155 read on claims 15 and 16. For claim 9, JP '155 teaches spherical particles. JP '155 fails to teach the claimed the process of formation of metal oxide that this used as one of the layers for coating. However, with respect to the process of formation of metal oxide, instant claims are drawn to a product and the process by which one of the components (used in the composition) does not carry patentable weight. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Thus, JP '155 anticipates instant claims.

Claim Rejections - 35 USC § 103

Claims 4, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 01247155 (JP '155) in view of US 3,767,443 to Clark et al (Clark).

JP '155 fails to teach the claimed metal or alloy layer, thickness of the layers or the coating of individual particles.

Clark teaches nacreous pigments comprising a plurality of high refractive index layers of titanium or zirconium dioxide layers, separated by one or more layers of organic film-forming layers or inorganic hydroxides or oxides. Clark teaches that the plurality of layers are separated by and adherent to one or more thin layers of organic film-forming layers or inorganic hydroxides or oxides that acts as an interleaving agent, which raises the refractive index of the

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said titanium or zirconium dioxide layers (col.1). Clark also suggests optimizing the thickness of the layers depending on the pigment used. And suggests that the thickness is important in determining the optical properties of the pigment (col. 4, lines 3-45). Accordingly, it would have been obvious for one of an ordinary Askill in the art at the time of the instant invention to optimize the layer thickness of the layers (formed by titanium oxide and organic resins) in the multilayered coated particle of JP'155 because Clark suggests that thickness of the layers and refractive index is important in controlling the optical properties and thus in retaining or eliminating the colored effects caused by optical interference. Accordingly, the expected result is that varying the thickness of the titanium dioxide results in a different color reflection, for example, blue to orange. Further, depending on the desired color reflection one of an ordinary skill in the art would have coated individual particles or all the particles with the same or different thickness of organic or inorganic intervening layers.

Response to Arguments

Applicant's arguments filed 2-20-04 have been fully considered but they are not persuasive.

Double patenting rejections:

Applicants argue that the claimed specific gravity is critical to achieve the present invention and thus patentably distinguishes over the claims of the reference patents. Applicants argue that the base particle of the present invention must have a specific gravity from 0.1 to 10.5, which constitutes the base of the multilayer-coated powder, from the standpoints of flowability and suspensibility and that the specific gravity below or above the ranges is uneconomical as it requires more layers or a increased thickness o the layers. Applicants further argue that the

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Examiner's comment that the patented claims are broader than the claims of the present application pertains to an alternate basis for the obviousness-type double patenting rejection, namely, improperly extending the "right to exclude" already granted in previous patents. The Examiner's reasoning is that, for example, a third party practicing the invention of present claim 1 would necessarily also infringe claim 1 of U.S. '466. However, that is not necessarily the case, because the metal oxide film may be formed other than by hydrolyzing a metal alkoxide as provided in claim 1 of the '466 patent. Applicants' arguments have been considered but not found persuasive because as applicants themselves explained instant claims differ from the patented claims, in general, by the specific gravity limitation in claim 1. However, both claimed invention as well as the patented claims recites the same metal or metal oxide layers used for coating. Further, claim 1 of '118 patent and '085 patent specifically recite the thickness that is also claimed in the instant dependent claims. Thus, the claimed differences are not the components but only in the properties, which are inherent to the coated particles of the patented claims. While U.S. '466 is silent with respect to the thickness or the refractive index, claim 1 of '466 is also practiced with the same components i.e., "coated powders". Accordingly, for the reasons mentioned, the double patenting rejection has been maintained.

Applicants' arguments with respect to the rejection of claims as being obvious over Korpi et al are moot because the rejection has been withdrawn.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lakshmi S Channavajjala whose telephone number is 571-272-0591. The examiner can normally be reached on 7.30 AM -4.00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lakshmi S Channavajjala

Examiner

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August 6, 2004